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Attorney Docket No.: 11338 (NCR.0120US)

DCH/gky

Date: December 15, 2008

Applicant(s): Gang Luo et al.

Serial No.: 10/767,681

Filing Date: January 29, 2004

Title: Rescheduling of Modification Operations for Loading Data Into a Database System

1. Reply Brief.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:	Gang Luo et al.	§	Art Unit:	2169
Serial No.:	10/767,681	§		
Filed:	January 29, 2004	§	Examiner:	Cam Y.T. Truong
For:	Rescheduling of Modification Operations for Loading Data Into a Database System	§	Atty. Dkt. No.:	11338 (NCR.0120US)

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REPLY BRIEF

Sir:

The following sets forth Appellant's Reply to the Examiner's Answer dated October 14, 2008.

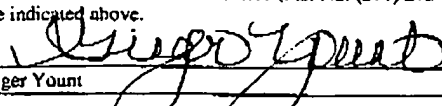
I. CLAIM OBJECTIONS

The Examiner objected to claims 20-22 based on usage of the term "adapted to." 10/14/2008 Office Action at 3. The Examiner argued that "adapted to" "suggests or makes optional but does not require steps to be performed or does not limit a claim to a particular structure [sic] does not limit the scope of a claim or claim limitation." *Id.*

Contrary to the assertion by the Examiner, courts have approved the use of "adapted to" as providing structural limitations. See *In re Venezia*, 189 U.S.P.Q 149, 151-152 (C.C.P.A. 1976) ("Rather than being a mere direction of activities to take place in the future, this language ["adapted to"] imparts a structural limitation . . ."). The court in *In re Venezia* stated that there

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is "nothing wrong in defining the structures of the components . . . in terms of the interrelationship of the components." *Id.* at 152. The claims of the present application recite "adapted to" to define the interrelationship between components of the claimed invention, which has been held by many cases as imparting structural limitation.

Withdrawal of the claim objection is respectfully requested.

II. REPLY TO EXAMINER'S ANSWER REGARDING CLAIMS 1-4, 12-15.

In the obviousness rejection of claim 1 over Ganesh '828 and Ganesh '943, The Examiner conceded that Ganesh '828 provides no teaching of (1) partitioning received modification operations (that modify at least first and second base relations) by submitting at least some of the modification operations operating on the first base relation to a first session, and submitting at least another of the modification operations that operate on the second base relation to a second session; and (2) grouping the at least some of the modification operations in the first session operating in the first base relation into a first transaction, wherein the at least another modification operation in the second session is part of a second transaction.

Contrary to the assertion made on page 6 of the 2/8/2008 Office Action, however, Ganesh '943 provides absolutely no hint of the partitioning recited in claim 1. Ganesh '943 teaches dependency tracking in a database system in which dependencies between transactions are tracked. Ganesh '943, 2:2-32. The Examiner cited specifically to the following passages of Ganesh '943: column 4, lines 60-67, column 5, lines 1-20. The cited passage in columns 4 and 5 refers to a series of transactions. This passage of Ganesh '943 provides no teaching of the claimed subject matter.

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The "partitioning" clause of claim 1 is as follows:

performing **partitioning** of the **received modification operations** by submitting at least some of the modification operations operating on the **first base relation** to a first session, and submitting at least another of the modification operations that operate on the **second base relation** to a second session;

The series of transactions depicted in columns 4 and 5 of Ganesh '943 all relate to the same relation: Emp_Table. There is absolutely no concept of partitioning received modification operations according to whether such operations operate on a first base relation or a second base relation. Moreover, there is absolutely no hint given in the cited passages of partitioning of the different modification operations operating on different base relations into first and second sessions.

The Response to Arguments section of the 10/14/2008 Examiner's Answer referred to the example provided in Fig. 7 of Ganesh '943 as purportedly supporting the obviousness rejection. In citing to Fig. 7, the Examiner argued that updates of the Dept_Table table are performed by transactions TXA, TXB, TXC, at commit times 5, 10, and 15, respectively. Examiner's Answer at 21. At commit time 25, the Examiner argued that transaction T5 performs an update of the Emp_Table table. *Id.*

The Examiner appeared to have confused two distinct examples provided in Ganesh '943. In a first example series of transactions, mentioned in columns 4 and 5 of Ganesh '943, reference is made to transactions T1-T5 that perform updates of the Emp_Table table. In this example series of transactions, there is absolutely no reference whatsoever to updates of another table.

In the example series of transactions referred to in connection with the Fig. 7 example, updates are performed by transactions TXA-TXF on the Dept_Table table. Fig. 7 makes absolutely no mention whatsoever of updating the Emp_Table table. *See* Ganesh '943, columns 13-17. In fact, it is noted that the example of Fig. 7 refers to determining dependencies for a

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transaction that modifies or deletes a row from a uniqueness constrained table, which in the example of Fig. 7 is the Dept_Table table. Thus, it is clear that the determination of dependencies taught by Ganesh '943 would be mutually inconsistent with the subject matter of claim 1, which refers to partitioning received modification operations by submitting at least some of the modification operations operating on the first base relation to a first session, and submitting at least another of the modification operations that operate on the second base relation to a second session. The two distinct examples of Ganesh '943 cited by the Examiner are distinct from one another, and the attempt to merge the two examples in arguing that the subject matter of claim 1 is taught by Ganesh '943 is clearly erroneous.

In the Response to Arguments section of the Examiner's Answer, the Examiner responded to Appellant's argument that no reason existed that would have prompted a person of ordinary skill in the art to combine the teachings of Ganesh '828 and Ganesh '943 by citing again to the examples provided in columns 4, 5, and Fig. 7 of Ganesh '943. As explained above, the two passages of Ganesh '943 refer to different example series of transactions, and therefore, Ganesh '943 would provide absolutely no hint whatsoever of partitioning received modification operations in the manner recited in claim 1.

In view of the foregoing, it is respectfully submitted that claim 1 is clearly non-obvious over Ganesh '828 and Ganesh '943.

III. REPLY TO EXAMINER'S ANSWER REGARDING CLAIMS 20, 22

In response to the Appellant's argument regarding claim 22, the Examiner used the phrase "adapted to" in claim 22 as an excuse to ignore this claim limitation. Examiner's Answer at 27. As explained above in the Claim Objections section of this Reply Brief, such an approach of ignoring claim limitations is clearly erroneous.

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As an alternative argument, the Examiner cited to the example given in column 5 of Ganesh '943, and more specifically, to transaction T5 of Ganesh '943 as purportedly disclosing the grouping of modification operations on a set of one or more tuples of the first base relationship into a transaction, and submitting such transaction to a database system separate from the first system. However, nowhere in this passage of Ganesh '943 is there any hint of submitting a transaction (in which modification operations on a set of one or more tuples of a first base relation have been grouped) to a database system separate from the first system for execution.

In view of the foregoing, allowance of claim 22 and its dependent claims is respectfully requested.


IV. CONCLUSION

In view of the foregoing, and in view of the arguments presented in the Appeal Brief, reversal of all final rejections is respectfully requested.

Respectfully submitted,

Date: _____

Dec 15, 2008



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